



Department of Energy
Germantown, MD 20874-1290

OCT 23 1997

José Gutiérrez López
Director
Departamento de Impacto Ambiental de la Energía
Centro de Investigaciones, Energéticas,
Medioambientales y Tecnológicas
Avenida Complutense 22
28040 Madrid, Spain

Pepe
Dear Dr. Gutiérrez:

It was a pleasure speaking with you on October 15, 1997. During our telephone conversation, you indicated that you did not have any changes to the draft Charter for the Palomares Program Review.

Procedures at the Department of Energy (DOE) require that my managers review and approve important documents, such as the draft Charter. After our telephone conversation, I submitted the draft Charter into the review process. Today, I incorporated comments from my managers, all the way up to the Acting Assistant Secretary for Environment, Safety and Health. Their comments were few, mainly sharpening the focus of the Charter purpose and the panel tasks and structure. I am forwarding the revised draft Charter to you for your review and approval. We do not anticipate any further changes to the draft charter because it has been reviewed at the highest level in our department.

For the two reviewers appointed by the DOE, I propose Dr. Fred Mettler and Dr. Chester Richmond. I have enclosed copies of their resumes for your consideration.

I was glad to hear that you have prepared answers to the questions about the site which we discussed at our meeting in September. You indicated that you were waiting for approval from your managers before releasing the responses. I look forward to receiving them.



I think that the next step will be for you and me to agree on a list of questions to submit to the panel for their consideration.

Thank you for your assistance in ensuring the success of the program review.

Sincerely,

A handwritten signature in black ink, reading "Barry Fountos". The signature is written in a cursive, flowing style.

Barrett N. Fountos
Program Manager
Office of International
Health Programs

Enclosures

cc w/enclosures:

Marshall Carter-Tripp, U.S. Embassy, Madrid

Charter

Palomares Program Review

Background

On September 15, 1997, the United States of America and the Kingdom of Spain signed the "Implementing Arrangement Between the Department of Energy of the United States of America and the Kingdom of Spain on Cooperation in Research on Radiological Evaluations," herein after referred to as the "Implementing Arrangement." The U.S. Department of Energy (DOE) and the Center of Energy Investigations, Environment, and Technology (CIEMAT) of Spain are the two respective parties to this Implementing Arrangement. The purpose of this Implementing Arrangement is to provide a mechanism for continued support from the United States for medical and environmental studies in Palomares, Spain.

Section III, "Program Review," of Project Annex I to the Implementing Arrangement requires that: DOE work with CIEMAT to establish a panel of outside independent experts to review and summarize the scientific and technological aspects of the program in Palomares, Spain, and to make recommendations on future directions.

Charter Purpose

The purpose of this charter is to provide the framework by which the panel is to conduct a thorough program review of the studies conducted pursuant to the Implementing Arrangement. The panel shall conduct its review in light of past and current funding agreements under the Implementing Arrangement and shall make its recommendations consistent with the current budgetary range of the program.

Panel Tasks

- Determine whether the ongoing work conducted pursuant to the Implementing Arrangement continues to serve the purposes for which it was intended;
- Determine the scientific appropriateness and adequacy of the ongoing work;
- Determine whether the program has achieved its original goals; and
- Based on these determinations, prepare a final written report documenting its recommendations to DOE and CIEMAT regarding the future direction of the program conducted pursuant to the Implementing Arrangement.

Panel Structure

The review panel will be composed of four independent outside experts, two selected by DOE and two selected by CIEMAT. The four will select a chairperson from among themselves. Panelists should be selected so that, as a whole, the panel will have scientific expertise over a range of fields relevant to assessing the program in Palomares. This may include disciplines such as environmental epidemiology, biostatistics, public health, medicine, medical monitoring, genetics, health physics, ecotoxicology and exposure pathway analysis, and radiation protection. Panelists should have a thorough understanding of the physicochemical properties, potential for adverse effects in humans and the environment, and exposure pathway analysis of the two major contaminants of concern, plutonium and americium.

Panel Meetings

The panel will meet as necessary, but it is anticipated that, at a minimum, an initial meeting, a tour of the site, and a meeting to discuss the report before finalizing it will be needed.

Records of all meetings shall be kept and reported to DOE and CIEMAT.

Panel Compensation

DOE will pay each panelist an honorarium of \$1,000 and will pay secretarial, administrative, and logistical expenses related to the project up to \$50,000.

Panel Reports

Upon completion of its work, the panel will release a final report to DOE and to CIEMAT containing its recommendations. The report is to be submitted in both English and Spanish.

Tentative Schedule

Milestone	Date
Agreement on Selection of the Scientific Review Committee Members	December 1, 1997
Initial Meeting of the Scientific Review Committee to Elect a Chair from among Themselves and to Make Assignments	January-February 1998
Site Tour of Palomares by the Scientific Review Committee	January-February 1998
Final Report Due to DOE and CIEMAT	July 1998

Approval

For the U.S. Department of Energy
Frank Hawkins, Director
Office of International Health Programs

Date:

For the Center of Energy Investigations,
Environment, and Technology
Name
Title

Date:

CHESTER R. RICHMOND
ASSOCIATE LABORATORY DIRECTOR EMERITUS
OAK RIDGE NATIONAL LABORATORY &
SCHOLAR IN RESIDENCE, ASSOCIATED WESTERN UNIVERSITIES, Inc.

July, 1997

108 Westwind Dr., Oak Ridge TN 37830-8618

Voice: 423.483.8826 ; Fax: 423.483.3603 ; richmonder@aol.com

Dr. Chester R. Richmond served as the Associate Laboratory Director for Biomedical and Environmental Sciences at the Oak Ridge National Laboratory (ORNL) from September 1974 until February 1990. ORNL was operated for the U.S. Department of Energy (DOE) by Martin Marietta Energy Systems, Inc. from April 1984 to March 1995 when Lockheed Martin Corporation assumed operational responsibility. He was responsible for all biomedical and environmental research supported by the DOE at ORNL and for related research sponsored by other federal agencies, including the National Science Foundation, the Environmental Protection Agency, and the Departments of Agriculture and Health and Human Services.

The multidisciplinary research programs in the biomedical and environmental sciences included (a) biological studies of carcinogenic, mutagenic, and toxicological effects, including biological repair mechanisms, of chemical and physical agents associated with energy and other technologies, (b) local, regional and global environmental studies of the effects of energy technologies on particular ecosystems, (c) assessments of present and future health and environmental effects of energy-related products and by-products, and (d) studies of the physics, chemistry, and quantitative measurement of these materials in the environment and the work place.

Since 1984, Richmond also served as Director of University and Educational Programs for ORNL. In that capacity he worked with major collaborative University-Laboratory projects. One, the joint ORNL-University of Tennessee at Knoxville Distinguished Scientist Program, is part of the Science Alliance Center of Excellence within the State of Tennessee's Better Schools Program. He still serves as a member of the Steering Committee for the Science and Technology Alliance, an organization that links three national laboratories (Los Alamos, Oak Ridge and Sandia) with four minority educational institutions (North Carolina A & T State University, Highlands University, the Ana G. Mendez University System in Puerto Rico and the Montana Native American Consortium) and other organizations (AT&T, Lockheed Martin Corporation and the Georgia Institute of Technology).

In February 1990, Richmond was named Director of Science Education and External Relations for ORNL. In this position he reported to the laboratory director. He was responsible for science education programs and the ORNL Regional Science Education Center. The ORNL Office of University and Educational Programs report to him. Richmond was responsible for liaison with the Oak Ridge Associated Universities, the Associated Western Universities, the Southeastern Universities Research Association, the University of Tennessee, the Tennessee Valley Authority, the Appalachian Regional Commission, and the State of Tennessee Department of Education. In this position he also was responsible for developing science education programs and partnerships between ORNL and community school systems in Tennessee and for expanding working agreements with research and development and educational institutions in the U. S. and abroad.

In May 1990 Richmond was named as an ORNL Associate Director Emeritus in recognition of his outstanding service as an Associate Laboratory Director from 1974 to 1990. Richmond retired from ORNL in January 1995. He serves on the ORNL Executive Committee for Honors and Awards and is a consultant on science education issues. He was awarded a Scholar in Residence appointment with the Associated Western Universities, Inc. in February 1995.

Richmond received a BA degree in Biology from the New Jersey State College at Montclair and the M.S. and Ph.D. degrees in Biology-Physiology from the University of New Mexico. His dissertation was based on research done at the Los Alamos Scientific Laboratory. He has served as a Professor in the University of Tennessee-Oak Ridge Graduate School of Biomedical Sciences and as an advisor to the Provost of the University of Tennessee in Knoxville from 1984 to 1989.

Before joining ORNL in 1974, Richmond was Alternate Health Division Leader at the Los Alamos Scientific Laboratory (LASL). He received the E. O. Lawrence Memorial Award and Gold Medal in 1974 for "research in radiation biology of internally deposited radionuclides and outstanding contributions to the resolution of radiation protection problems." Richmond received the Radiation Research Society Award and delivered the Gioacchino Failla memorial lecture in 1976. He received from the USAEC a Special Achievement Certificate in 1970 and a Certificate of Appreciation in 1975. His early work on interspecies metabolic correlations for internally deposited radionuclides was selected for inclusion in the 25th anniversary issue of *Health Physics* in 1980. This commemorative issue contained 22 key papers in the field of

radiation protection selected from the period 1897-1975. In 1987, Dr. Richmond was selected as one of the "top ten" contributors to *Health Physics* for the period 1958-1986. He has published more than 200 scientific papers and reports.

Richmond was a member of the U.S. National Council on Radiation Protection and Measurements (NCRP) from 1975 until 1993. He was also a member of NCRP's Scientific Committee 1 on Radiobiology, Epidemiology, Risk and Basic Radiation Criteria, and the Task Group on Space Probe Galileo. He served on the NCRP Board of Directors from March 1988 until April 1993. Richmond was the Program Committee chairman for the 1990 annual national meeting, *Health and Ecological Implications of Radioactively Contaminated Environments*, and editor of the meeting Proceedings. He was elected to honorary NCRP membership in April 1993.

Richmond was a member of the International Commission on Radiological Protection (ICRP) Committee 2 on Secondary Limits from 1977 to 1993 and Vice Chairman of Committee 2 since 1985. He was Chairman of the ICRP Task Group on the *Revision of Reference Man* (ICRP Publication 23). He was a corresponding member of the Task Group on Age Dependent Dosimetry, a member of the Working Party on the Biokinetics of Carbon-14 and Tritium and a member of the Working Party on the Development of Phantoms.

Since its formation in 1966, Dr. Richmond has been a member of the International Radiation Protection Association. He has served on panels and co-authored reports for the International Atomic Energy Agency, the International Commission on Radiological Protection, and the Organization for Economic Cooperation and Development. He has served in an advisory capacity on radiation protection matters to state, federal, national and international organizations. In these roles he has traveled to Austria, Brazil, England, France, Federal Republic of Germany, Japan, Micronesia, Spain, Sweden and the USSR.

Richmond was a member of the Environmental Panel for the U.S. Energy Research and Development Agency's *Study on Inexhaustible Energy Resources* in 1977-1978. He was a member of the Federal Interagency Task Force on *Uranium Mining Hazards* in 1978 and served as a panel member of the National Research Council's *Planning Conference on Synthetic Fuels* in 1979. In 1981 he served as the U.S. Scientific Advisor to the International Symposium on *Health Impacts of Different Sources of Energy* sponsored by the World Health Organization, the United Nations Environment Programs, and the International Atomic Energy Agency. He was a member of the U.S. DOE's Energy Research Advisory Board's panel on *Light Water Reactor Safety Research and Development* in 1982. Richmond represented ORNL on the Federal Interagency Task Force on *Acid Precipitation* created by the 1980 Energy Security Act. He served on the technical Program Committee for the *International Conference on Acid Rain* organized by the University of London and held in Lisbon, Portugal in 1987. Richmond served as honorary chairman and a member of the Program Committee for the September, 1987 American Nuclear Society topical conference on *Population Exposure from the Nuclear Fuel Cycle*. Richmond was a key speaker and a member of the Program Committee for a 1988 post-Chernobyl workshop on the Transfer of Radionuclides to Farm Animals sponsored by the National Radiological Protection Board of the United Kingdom and the Commission of the European Communities.

Richmond is a fellow of the American Association for the Advancement of Science and a charter member of the Health Physics Society (1955). He is a member of Sigma Xi and the Radiation Research Society. He was a member of the New York Academy of Sciences and a founder of the Society for Risk Analysis.

Richmond is a member of the Regional Board of Directors for the Appalachia Educational Laboratory's Eisenhower Mathematics and Science Consortium that oversees systemic reform activities in TN, KY, VA, and WV. He is a member of the American Technical Education Association, its National Advisory Council and its Board of Trustees. He is a member of the Oak Ridge Chamber of Commerce Committee on Education and co-chair of the Oak Ridge 2000 Steering Committee. He also serves on the editorial board of *FORUM for Applied Research and Public Policy*, a quarterly publication of the Oak Ridge National Laboratory and the University of Tennessee's Energy, Environment and Resources Center.

Richmond was a member of the National Academy of Sciences Mathematical Sciences Education Board from 1993 - 1996. He served as a consultant to the National Education Goals Panel's Resource Group working on Goal Five for several years and on the development of indicators for the Panel's 1994 annual report. He served on a special Steering Committee that produced a report for the Governor of Tennessee entitled *Tennessee Science and Mathematics Teacher Enhancement Initiative - A Plan of Action* and was Principal Investigator for a National Science Foundation sponsored inter-laboratory Teacher Enhancement grant. He served on the National Science Scholar Selection Committee for Tennessee from 1991 - 1992 and on the State of Tennessee Business Roundtable's Education Task Force from 1993-1995. In recent years Richmond was a member of the Federal Interagency Strategy Team for the Tri-State Education Initiative (AL, MS, and TN).

the Executive Advisory Committee for the Creative Discovery Museum in Chattanooga, the North American Association for Environmental Education, and the Martin Marietta Energy Systems Technology 2020 Advisory Board. Richmond was instrumental in developing the Oak Ridge Educational Network that links many students and teachers to worldwide educational resources via computers and telecommunications systems. He is a member of the national Consortium for School Networking.

CURRICULUM VITAE

FRED A. METTLER, JR., M.D., M.P.H.

April 1997

OFFICE ADDRESS:

Chairman
Department of Radiology
University of New Mexico
School of Medicine
Albuquerque, New Mexico 87131

HOME ADDRESS:

3004 La Mancha Street NW
Albuquerque, New Mexico 87104

TELEPHONE:

Office: (505) 272-0011
Home (505) 243-0236
FAX: (505) 272-5821

PLACE AND DATE OF BIRTH:

New York, New York -- April 17, 1945

MARITAL STATUS:

Married to Gloria Ann Dedula
Children: Two sons, Erik and Larsen

Fred A. Mettler, Jr., M.D., M.P.H.

Curriculum Vitae

EDUCATION:

- 1966 A.B. Mathematics
Columbia University
New York, New York
- 1970 M.D. Jefferson Medical College
Philadelphia, Pennsylvania
- 1975 M.P.H. Industrial Health
Harvard School of Public Health
Boston, Massachusetts

HONORS:

- 1978-82 Picker Foundation Scholar
- 1978-79 Outstanding Teacher of the Year
UNM Radiology Department
- 1982 John Muir Award, Medical Film Festival
Standard Oil of California Radiology Award
- 1984 Fellowship, American College of Radiology
- 1994 Listed among "The Best Doctors in America"

TRAINING AND EXPERIENCE:

- 1969 Guest Investigator
National Cancer Institute
National Institutes of Health
Bethesda, Maryland
- 1970-71 Rotating Internship (Radiology)
University of Chicago Hospitals & Clinics
Chicago, Illinois
- 1972-74 Radiologist
United States Air Force
Forbes AFB Hospital
Topeka, Kansas
Wounded in the line of duty
Disabled Veteran

Curriculum Vitae

TRAINING AND EXPERIENCE (continued):

1974-76	Medical Consultant Radiation Management Corporation Philadelphia, Pennsylvania
1974-76	NIH Clinical Fellow Massachusetts General Hospital Harvard School of Medicine Boston, Massachusetts
1975	Graduate, Nuclear Engineering Courses Massachusetts Institute of Technology Cambridge, Massachusetts
1976-77	Manager, Health Services Division Radiation Management Corporation Philadelphia, Pennsylvania
1976-77	Assistant Clinical Professor Department of Radiology & Nuclear Medicine University of Pennsylvania
1977-78	Acting Chief, Division of Nuclear Medicine University of New Mexico Hospital Albuquerque, New Mexico
1977-79	Chief, Diagnostic Imaging (CT & US) Cancer Research & Treatment Center Assistant Professor of Radiology University of New Mexico Medical Center Albuquerque, New Mexico
1980-83	Chief, Diagnostic Imaging Associate Professor of Radiology University of New Mexico Medical Center Albuquerque, New Mexico
1983	Vice Chairman Department of Radiology Full Professor with Tenure University of New Mexico Albuquerque, New Mexico
	Chief, Radiology Service Veterans Administration Medical Center Albuquerque, New Mexico

Curriculum Vitae

TRAINING AND EXPERIENCE (continued):

1984	Professor with Tenure Department of Radiology University of New Mexico School of Medicine
	Director, Nuclear Medicine Technology Program University of New Mexico
	Director, Radiology Residency Program University of New Mexico
	Chief, Radiology Service Veterans Administration Medical Center Albuquerque, New Mexico
1985	Acting Chairman Department of Radiology University of New Mexico School of Medicine
1986-present	Professor and Chairman Department of Radiology University of New Mexico School of Medicine
1996-1997	Interim Director of Managed Care Operations UNM Health Sciences Center

LICENSURE:

Currently licensed in New Mexico (License number: 77-71)

Diplomate of the National Board of Medical Examiners

Previously licensed in New York, New Jersey, Illinois,
Montana, California, Kansas, Pennsylvania, Massachusetts

CERTIFICATION:

American Board of Radiology, 1976
American Board of Nuclear Medicine, 1976

SECURITY CLEARANCE:

Q clearance, Los Alamos National Laboratories, 1981-86

Fred A. Mettler, Jr., M.D., M.P.H.
Curriculum Vitae

EDITORIAL:

Editorial Advisory Board - *Radiology*, 1984-91

Associate Editor - *Radiology*, 1985-1991

Series Editor, *Contemporary Issues in Nuclear Imaging*
Publisher: Churchill-Livingston, NY, 1988

Series Editor, *Imaging*
Publisher: Little Brown and Company, 1988-1990

Series Editor, *Essentials in Radiology*
Publisher: W.B. Saunders, 1994-

Reviewer

Health Physics

American Journal of Epidemiology

Journal of Nuclear Medicine

Journal of the American Medical Association

MEDICAL AND SCIENTIFIC SOCIETY MEMBERSHIPS:

American College of Emergency Physicians

American College of Nuclear Physicians

American College of Radiology

American Nuclear Society

Health Physics Society

New Mexico Radiological Society

Vice President, 1979

Secretary, 1980

President, 1981-83

New Mexico Ultrasound Society

President & Trustee, 1977-79

Radiological Society of North America

Program Committee, 1982-present

Program Chairman - Nuclear Medicine, 1987-present

RSNA Delegate to NCRP, 1987-present

Society of Nuclear Medicine

Vice President, Rocky Mountain Chapter, 1979-80

MEDICAL AND SCIENTIFIC SOCIETY MEMBERSHIPS (continued):

Association of University Radiologists

Executive Committee, 1985-present
Rules Committee, 1986-present
Scientific Program Committee, 1986-present
Committee on Residency Program Directors, 1989-
Committee on Standards for Responsible Conduct of Research
Program Committee, 1994-present

AUR Representative to National Council on Radiation Protection

Society of Sigma Xi, Full Member 1981

New York Academy of Sciences 1992

Society of Epidemiologic Research 1992

UNIVERSITY COMMITTEES:

University of New Mexico Medical Center

Human Uses Radiation Subcommittee, Chairman, 1978-present
Radiation Control Committee, Vice Chairman, 1981-present
Credentials Committee, 1979-81
Continuing Medical Education, 1978-81
Library Committee, 1980-88
Tissue Committee, 1983-85
Executive Committee, 1985-present

Board of Directors,

New Mexico Medical Foundation, 1984-85, and 1986-present
Executive Committee, 1986-present

UNMH Board of Trustees Conference Committee, 1986

NATIONAL COMMITTEES:

American Board of Radiology

Oral Examiner: Nuclear Medicine, 1979-81
CT & Ultrasound, 1982
Special Competence in Nuclear Medicine, 1983-1995
Written Boards, Radiobiology Section Chief, 1984-1992

American College of Radiology (ACR)

Commission on Nuclear Medicine, 1979-1992

Committee on Government Affairs, 1981-1987

Committee on Radiation Policy, 1980-85

Committee on Biological Effects of Ultrasound, 1978-82

Committee on Residency Training, 1982-present

Vice Chairman, 1985-89

Chairman, 1989-1996

Committee on Radiologic Units, Standards & Protection, 1979-present

Vice Chairman, 1989-1992

Committee on Quality Assurance & Efficacy (CNM),

Chairman, 1981-83

ACR Delegate to the American College of Nuclear Physicians, 1981-84

Committee on Malpractice, 1983-86

Ad hoc Committee on Low Level Exposure Effects, 1985-1991

Ad hoc Medical Advisory Panel on Non-Military Radiation

Accidents, Chairman, 1986-1990

Accreditation Council for Graduate Medical Education (ACGME)

Member, Appeals Panel Diagnostic Radiology, 1986-96

National Council on Radiation Protection and Measurements (NCRP)

Board of Directors, 1991-1998

Scientific Vice President (Medical Radiation)

Committee on SI Units, 1981-present

Committee 44, Medical Irradiation, 1982-86

Chairman, 1986-present

Committee 63, Protection of the Public in the Event of a Large Radiation

Accident or Attack

Budget Committee, 1988-1995

American College of Nuclear Physicians

Alternate Delegate to the ACR, 1979-83

State Delegate to Council, 1986

National Academy of Sciences, National Research Council

Committee on Assessment of CDC Radiation Studies, 1991-93

National Cancer Institute

Review Committee for Projects on Radiation-induced

Thyroid Cancer in Belarus and the Ukraine, 1993-95

Multi-national Review Committee on Thyroid Projects, 1996

National Research Council

Institute of Medicine

Co-chair Committee on Feasibility of, and Need for, Epidemiologic Studies of
Adverse Reproductive Outcomes in Families of Military Personnel Present
at Atmospheric Test of Nuclear Weapons, 1995

Chairman, Committee to Review NATO Battlefield Criteria, 1996-

Chairman, Subcommittee on Ultrasound, Thyroid Screening, 1996-

INTERNATIONAL COMMITTEES:

United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR)
Member, U.S. Delegation, 1977-82
Consultant and member of the U.N. Secretariat, 1983-87
United States Representative, Head of U.S. Delegation, 1986-present
International Commission on Radiation Protection (ICRP)
Member, Main Commission (one of twelve), 1989-
Chair, Working Group on Optimization of Dose in Diagnostic Radiology, 1991
Chair, Committee 3, Medical Radiation Protection, 1996-2002
International Atomic Energy Agency, Medical Team Leader,
Member, International Expert Advisory Group.
IAEA-Chernobyl Evaluation Project, 1990
World Health Organization, Scientific Advisory Committee on Long-Term Study of
Chernobyl, 1990-1991

CONSULTANT:

United States Army, Nuclear Medicine Consultant, 1982-85
Peace Corps - Washington, D.C., Radiation Effects Consultant, 1994

VISITING PROFESSOR:

Mallinckrodt Institute of Radiology, Washington University,
St. Louis, Missouri, March, 1984
University of Texas, San Antonio, Texas
October, 1984
Yale University, New Haven, New Haven, Connecticut
November, 1984
University of Colorado at Denver, Denver, Colorado, 1985
Children's Hospital, San Francisco, California, 1986
Mayo Clinic, Rochester, Minnesota, 1986
Wiggins Lectureship 1992
McKenzie Lectureship 1992
Failla Lectureship 1993

FACULTY:

Medical Management of Radiation Accidents, 1986-1992, University of New Mexico
REAC/TS, Department of Energy, Oak Ridge Associated Universities, 1983-1991

Fred A. Mettler, Jr., M.D., M.P.H.
Curriculum Vitae

PUBLICATIONS:

1. Mettler FA. Medical Student Activities. NEJM 279 (2), Ltr. 106, July, 1968.
2. Mettler FA, Hempelmann LH, Ames W, et al. Breast Neoplasms in Women Treated With X-rays for Acute Post-partum Mastitis. J. Natl. Cancer Inst. 43:803-811, 1969.
3. Mettler FA, Ghahremani GG. Fuzzy Fluid Level Sign: A Reappraisal of Its Cause and a Diagnostic Value. Radiology 105:559-511, 1972.
4. Griem ML, Moran EM, Ferguseon DJ, Mettler FA, et al. Staging Procedures in Mycosis Fungoides. Brit. J. Cancer: Suppl. II, 362-367, 1975.
5. Mettler FA, Hainen R, Guiberteau MJ. Gallium Scanning Still Experimental? NEJM 293, Ltr (12), 610-611, Sept. 1975.
6. Mettler FA, Drolette M. In Vitro Rubidium Uptake by Erythrocytes Following Low-level X-ray Exposure. Health Phys. 30:401-404, 1976.
7. Mettler FA. Medical Concerns (CONF-760761-P1) in Proceedings of the National Energy Forum, (Jackson JL, Ed.), Univ. of Akron, Akron Ohio, July 1976.
8. Kalisher L, Mettler FA, Seligson D. Normal Axial Relationship of the Wrist. Revista Interamericana Radiologia 1:25-26, October 1976.
9. Berry RJ, Brennan JT, Mettler FA, Werner JL. Survival of Murine Leukemia Cells Exposed to ²⁵²Cf Neutrons under Conditions Simulating Implantation of These Radiation Sources into Tissue in Radiotherapy. (Abstract). Radiation Research 43: 215-216, July 1970.
10. Baram M, Petraske E, Mettler FA. Legal and Institutional Aspects of Using Cost-Benefit Analysis to Control Ionizing Radiation. BEIR Comm. Report 2, 73-122, National Academy of Sciences, 1977.
11. Linnemann RE, Mettler FA. Emergency Medical Assistance Programs for Nuclear Power Reactors. IAEA-SM-215/22, Inter Atomic Energy Agency, Vienna, 1977.
12. Mettler FA, Rocco FG, Junkins R. The Roles of EMT's in Radiation Accidents. Emer Med Svcs 6 (3) 22-25, 1977.
13. Mettler FA, Shea WH, Guiberteau MJ, et al. Improvement in Visualization of Hepatic Lesions with Upright Views. J Nuc Med 18:1128-1130, 1977.

Fred A. Mettler, Jr., M.D., M.P.H.

Curriculum Vitae

PUBLICATIONS (continued):

14. Moore H, McKinney R, Mettler FA. Radiographic and Radionuclide Findings in Rhizopus Osteomyelitis. Radiology 127:665-666, June 1978.
15. Mettler FA. The Hospital Administrator and Radiation Accidents. Emer Med Serv 7(3): 78-80, 1978.
16. Mettler FA. Initial Medical Management of Radiation Accidents. Ann Emer Med 1978.
17. Mettler FA, Kelsey CA, Baram M. Medical and Legal Implications of a Large Release of Radioiodine. Nuclear Safety 19:741-747, 1978.
18. Shreiner DP, Mettler FA, Grossman ZD, Wistow BW. Visualization of Hepatic Lesions with Upright Views, and Replies. J Nuc Med 19:563-564, May 1978.
19. Mettler FA. Emergency Management of Radiation Accidents. J Amer Col Emer Phys 7:302-305, August 1978.
20. Kligerman NN, Tsujii H, Bagshaw M, Mettler FA, et al. Current Observations of Pion Radiation Therapy at LAMPF: Treatment of Radioresistant Cancer. Elsevier/North Holland Biomedical Press, 1979.
21. Mettler FA, Bell GV, Rocco D. Emergency Medical Services Following a Nuclear Reactor Accident. Emer Med Serv 8(4) 52-56, July 1979.
22. Mettler FA, Schultz KH, Kelsey CA, et al. Gray Scale Ultrasonography in Evaluation of Neoplastic Invasion of the Base of the Tongue. Radiology 133:6781-783, Dec 1979.
23. Brogden BG, Moseley RD, Mettler FA. Effective Diagnostic Imaging: Network for CME, Programmed Text and Workbook. New York, NY, 1978.
24. Mettler FA. Optimization of Mobile Multiphasic Health Testing. J Occ Med 22(3):180-182, March 1980.
25. Bartow SA, Weston JT, Mettler FA, Key CR, Black WC, Anderson HC. Benign and Noninvasive Breast Lesions in Populations at Different Risk for Breast Cancer. (Abstract) Lab Investig 42:100, January 1980.
26. Parker TW, Kelsey CA, Moseley RD, Mettler FA, Garcia JF. Directed Versus Free Search for Nodules in Chest Radiographs. (Abstract). Inv. Radiol 17:152-155, 1982.
27. Tsujii H, Bagshaw M, Smith AR, Mettler FA, et al. Localization of Structures for Pion Radiotherapy by Computerized Tomography and Orthodiagraphic Projection. Int J Rad Oncol Biol Phys 6:319-325, 1980.

PUBLICATIONS (continued):

28. Requard K, Mettler FA. Use of Ultrasound in the Evaluation of Trophoblastic Disease and its Response to Therap. *Radiology* 135:419-422, May 1980.
29. Crawford ED, Rogers HC, Mettler FA, et al. Ultrasonic Detection of Renal Tubular Carcinoma Extending into the Inferior Vena Cava. *J Urol* 124:538-539, Oct. 1980.
30. Moore Ph, Mettler FA. Skin Decontamination of Commonly Used Medical Radionuclides. *J Nuc Med* 21:475-476, 1980.
31. Mettler FA. Low-level Radioactive Waste: Generators Experience. Nuclear Regulatory Commission NUREG/CP 0013, July 1980.
32. Mettler FA, Christie JC. Scintigraphic Pattern of Acute Renal Vein Thrombosis. *Clin Nuc Med* 5(10):468-470, Oct 1980.
33. Mettler FA, Christie JC. Another Cause of Hepatic Hot Spot: Isolated Innominate Vein Obstruction. *Clin Nuc Med* 5(110):514-515, Oct 1980.
34. Crawford ED, Mettler FA, Peters PC, et al. Clinicopathologic Conference: Renal Mass in a Man with Eosinophilic Granuloma. *Urol* 15:520-525, May 1980.
35. Ball WS, Wicks JD, Mettler FA. Prone-Supine Change in Organ Position: CT Demonstration. *Am J Roentgenol* 135:815-820, Oct 1980.
36. Wicks JD, Mettler FA, Schultz KS. Bacterial Contamination of an Automated Water Path B-Scanner. *Radiology* 136:792-793, Sept 1980.
37. Mettler FA, Wicks JD, Thornbury JR, et al. Co-existent Renal Eosinophilic Granuloma and Renal Adenocarcinoma. *Urol Radiol* 1:247-249, 1980.
38. Caswell R, Epp E, Mettler FA, et al. SI Units in Radiation Protection and Measurements National Council on Radiation Protection and Measurements Report No. 82, Washington, DC. 1985.
39. Mettler FA, Wicks JD, Seigel RS. New Diagnostic Images: How, When, Why? Programmed Text Workbook, NCME, New York, 1981.
40. Mettler FA. Low-level Radiation Hazards in the Clinical Laboratory. *Lab World* 32:18-24. April 1981.
41. Alsofrom D, Mettler FA, Mann J. Radiographic Manifestation of the Plague in New Mexico 1975-1980, A Review of 42 Proven Cases. *Radiol* 139:561-565, Jun 1981.

Fred A. Mettler, Jr., M.D., M.P.H.

Curriculum Vitae

PUBLICATIONS (continued):

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